

Erstellung von Bildungsinhalten, die geeignet sind, die Ausbildung zukünftiger Fachkräfte auf Basis digitaler Technologien zu modellieren

Eshonqulov B.S. – Jizzakh Zweig der National University of Uzbekistan,
unabhängiger Forscher.
E-mail: bunyodebs@mail.ru

Zusammenfassung: Der Artikel diskutiert die Frage der Verbesserung der Ausbildung von vielversprechenden Energietechnikern auf Basis digitaler Technologien auf Basis der Modellierungsmethode.

Dieser Artikel kann von denen verwendet werden, die sich mit dem Problem der Verbesserung der Qualifikation zukünftiger Fachkräfte beschäftigen.

Schlüsselwörter: digitale Technologien; Ausbildung; Professionelle Aktivität; Modell; Bildungsinhalte; Formation; innovativ; Angestellte; intellektuell; Ausbildung; System; Fragen; Spezialisten; innovativ entwickelt; Richtungen; Modell; Verfahren; Veranstaltungen; Software und didaktischer Komplex; Bildungssoftware; interaktiv; Kommunikation; Schnittstelle; interaktive Arbeitsprogramme; methodisch; liefern.

Creation of educational content that is suitable for modeling the training of future specialists on the basis of digital technologies

Eshonqulov B.S. - Jizzakh branch of the National University of Uzbekistan,
independent researcher.

E-mail: bunyodebs@mail.ru

Annotation: The article discusses the issue of improving the training of future power engineers based on digital technologies based on the modeling method.

This article can be used by those who are dealing with the problem of improving the qualifications of future specialists.

Keywords: digital technologies; training; professional activity; modeling; educational content; formation; innovative; staff; intellectual; education; system;

questions; specialists; innovatively developed; directions; model; process; Events; software and didactic complex; pedagogical software; interactive; communication; interface; interactive work programs; methodical; supply.

The preservation of the dynamics of development of society and the state in the first century of the third millennium is directly related to the informatization of society. Based on them, a creative environment is created for the intellectualization of society. Therefore, the training of professionals working in such a creative environment is one of the most pressing issues today.

Today, intellectually talented, innovatively developed professionals are in great demand in various spheres of life. Addressing this important challenge is one of the most important challenges facing the continuing education system. To do this, it is necessary to further improve the training of future professionals in accordance with modern requirements.

The article also discusses the process of modeling the process of improving the professional training of future energy engineers on the basis of digital technologies and the formation of relevant educational content.

The results of our research and observations in this area show that the use of modeling methods in the training of future energy personnel provides ample opportunities to obtain optimal options for the training of future professionals.

- Based on the study of scientific, methodological literature and achievements in the field of education modeling, we found it appropriate to use the modeling method in solving the problem of improving the software for training future energy engineers on the basis of digital technologies. It was based on four stages of training future energy engineers, a description of the problem and a research strategy. They formed the main components of the model being prepared, and auxiliary components were also set up on them. These include:

- didactic support of training of future specialists;
- interactive learning complexes;
- algorithmic stages of teaching;

- interactive communication interface;
- didactic possibilities of pedagogical software;
- a set of pedagogical programs;
- application package;
- a set of interactive work programs;
- innovative software and didactic complex;
- Software for general use.

These components are closely intertwined, and the training of future energy engineers is seen as a dynamic system. The end result of this system is the results achieved, and pedagogical effectiveness is assessed by identifying and evaluating them. If they are positive, the research is summarized and appropriate recommendations are formulated, if the effectiveness is not positive, a research strategy is applied.

Taking into account the modeling of software and methodological training of future energy engineers, we have developed an organizational and structural model of software development and training of future energy professionals, consisting of twenty-five components.

The organizational and structural model of training future energy personnel provides a methodological basis for optimizing research in this area, and the problem can be solved on a scientific basis and the following conclusions can be drawn about them:

- The process of training future energy engineers can be seen as an integrated dynamic system;
- Systematic gradual improvement of software and methodological training of future energy engineers is possible;
- There are full organizational and pedagogical opportunities to improve the software to prepare future power engineers for professional activities;

- Opportunities to optimize the training of future energy engineers will be further strengthened through the development of innovative software-didactic complex and innovative-integrated education and others.

Thus, based on the above, it is possible to train modern competitive future energy workers through education.

Now it is expedient to think about the formation of an updated educational content on the preparation of future energy engineers for professional activities on the organizational-structural model developed in the next part of our study.

This study also needed to formulate an updated educational content. This is due, **firstly**, to the fact that the training of future energy personnel is based on digital technologies, **secondly**, the training of future energy personnel is based on the improvement of software, and **thirdly**, the content of traditional education is based on reference books. is killed. , **fourthly**, the content of traditional education enriched on the basis of didactic materials, and **fifthly**, the content of traditional education is further improved through creative information.

Taking into account the above and based on our experience in this area, we found it expedient to prepare an updated content of professional training for future energy engineers, as shown in Figure 1. Education, it is possible to constantly change and update the content of education, taking into account the requirements of the times, and, if necessary, to prepare them in alternative versions.

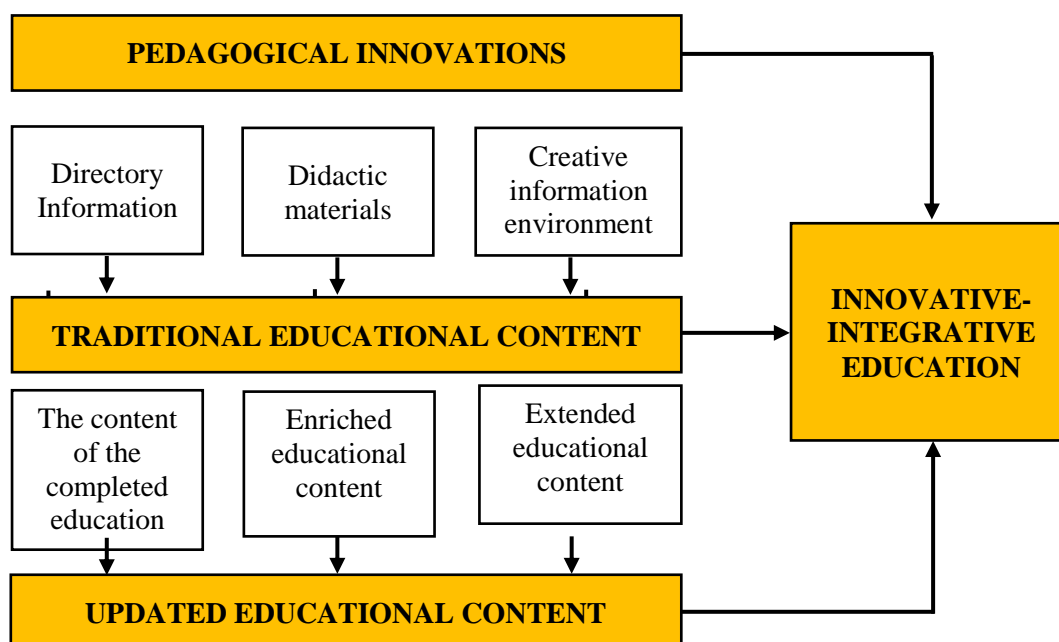


Figure 1. Organizational structure of the formation of the updated educational content in the preparation of future power engineers for professional activities.

An important aspect of the updated curriculum based on the proposed content of traditional education is that it provides ample opportunities to take into account scientific and technical advances in the training of future energy professionals and to take into account creative information and systematize information-based information. on them. . It also provides ample opportunities for the selection of pedagogical innovations, taking into account the updated content of education. This will ensure the achievement of the optimal option of organizing innovative-integrative education in the preparation of future power engineers for professional activities. The technology of updating the content of education is universal and can be easily used in the process of improving the quality of education and optimizing the training of future professionals.

This means that it is necessary to develop innovative methods for educating such content or preparing future professionals for professional activities. Without it, it is impossible to increase the professional training of future energy engineers.

Based on our research in this area, we have called such a methodology a **programmed integrative methodology**. This is because the developed innovative methodology covers all four stages of professional training of future energy engineers and incorporates the process of integration with programming.

In this part of the development of the methodology under consideration, the following program-methodological components should always be taken into account: pedagogical software tools and their didactic capabilities; application package; a set of interactive work programs; innovative software and didactic complex, etc .;

These are very important in the implementation of the developed innovative methodology. Based on them, the final result of the study is determined and evaluated.

- In conclusion, **it should be noted** that solving the problem of software development to prepare future power engineers for professional activities guarantees the following educational advantages:

- Didactic opportunities on interactive educational technologies and programmed education will be created for the process of professional training of future power engineers;

- It will be possible to increase the professional training of future energy engineers through intelligent training systems and tools;

- Professional training of future energy engineers will be possible through innovative and integrated education and the use of digital technologies;

- A wide range of opportunities will be created for the use of professional computer simulators and intelligent training systems in the training of future energy engineers;

- Computer modeling, a set of interactive work programs, a set of applications, intelligent training systems, etc. will be created to improve or innovate the training of future energy engineers.

Taking into account the above and the methodological nature of the organizational and structural model, in the next part of our study it will be possible to formulate the following recommendations:

- Software development methodology for the training of future energy engineers based on digital technologies can be used to train specialists in other areas;

- The use of software and methodological training of future energy engineers based on digital technologies in the development of innovative technologies for professional activities has a positive pedagogical effect;

- The system for determining and evaluating the effectiveness of digital energy training of future energy engineers can be used as a guide in the process of training future professionals.

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